The Paradox of a Pair of Docs

By Angela Tenholder, DMD, FAACP, DABCDSM

A paradox can be defined as a situation, person, or thing that combines contradictory features or qualities. Sleep itself is complex, and dealing with the doctors who treat the complexities of sleep can be even more challenging. Even though the physician and the dentist come from different perspectives, they both can help the same patient. This “pair of docs” might be considered a paradox in the treatment of patients with sleep disordered breathing.

Among other things, physicians look at sleep as measured by a compilation of biometric data points that determine sleep efficiency and quality, yet often struggle to succeed in optimizing those data points to improve quality of life with CPAP and surgery. Similarly, dentists trained in sleep medicine have their own perspective, which is often much different from their medical colleagues. In addition, there is often a vast difference in the approach of dentists based on their training and perspective on dentistry.

Dentists have both difficult challenges and amazing opportunities to improve the quality of life for patients with sleep disordered breathing. Dentists can evaluate, treat and monitor the effects of both non-treatment and therapeutic interventions as they routinely see their patients at least twice per year. The challenge of providing optimal patient care comes in understanding that treating the patient with complex needs requires more than just fabricating a dental sleep appliance and treating an improvement in oxygen saturation data.

Understanding the neurologic implications of a poorly fitting appliance or the potential complications to the jaw joint, muscles, function and neurology of the craniofacial complex takes a significant amount of training and dedication. If the dentist does not understand these concepts and is not willing to manage the complications, they might unknowingly create illness while claiming to create wellness. Dentists who pass the rigorous standards of becoming board certified in craniofacial dental sleep medicine are required to understand the complexities of treating the many facets of the patient with sleep disordered breathing. They often approach patient care from a more comprehensive perspective than exclusively focusing on reducing the patient’s AHI with dental appliance therapy.

To begin to appreciate the paradox and complexities of the terrain in dental sleep medicine, one needs to understand that dentists have...
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varying degrees of training and experience. Some exclusively focus on treating disease in the teeth and gums. Some are trained to consider how the mouth affects airway function. Very few view the mouth as an impact on whole body function as related to the neurologic and emotional operating systems of the body. Some might take a weekend course and others will become board certified. Some will agree to accept insurance assignment and others will decide to have a cash-based practice. Some choose to deliver the most inexpensive dental sleep appliances in exchange for a high profit margin while others take a more comprehensive, health-focused approach.

It is critical for all providers to understand that there are many design options for dental appliances and that their use affects much more than just the airway. If the provider doesn’t understand the multitude of complexities, they probably won’t be able to recognize that the dental appliance may reduce snoring yet increase temporomandibular joint disorders and neurological issues for the patient.

The Paradox of the Mental-Dental Connection

Sleep quality is impacted by the form and function of the oral environment in more ways than we currently know and have yet to fully comprehend, yet the self-contradictory nature of appreciating the dentist is obvious to most who understand that dentistry is not the most popular of professions despite their pivotal role in healthcare.

The mouth sits at the center of our emotional world. It is where we can take a sigh of relief. It is where we have passionate kisses and intelligent conversations. It is the doorway of the violent cough and the repulsive gag, and where we experience delicious tastes, contagious smiles and sheepish grins. Breathing, communication, nutrition and emotion all occur in the playground of the dentist. The balance of the bite has been linked to neurologic wellness and overall function. Inflammation and disease in the mouth has been linked to many disease states in the entire body.

One of the biggest challenges in understanding the impact of dentistry can be explained through understanding force imbalances. If you have ever sat at a wobbly table with one short leg, you can begin to appreciate the impact of a jaw joint or bite imbalance as perceived by the brain. If a dentist does not create the environment for balanced forces to the teeth and jaw joints, they may be unknowingly creating neurological challenges as a result of their treatment. The trigeminal nerve that innervates the oral environment has a tremendous impact on neurologic function. An imbalance in the bite can lead to dysfunction in many important functions of the entire body. Bite imbalances can be created by both the use of and the failure to use dental appliances.

Many people do not know that it is not recommended that teeth be touching each other when not swallowing or eating. It is normal to swallow and bite thousands of times each day for split seconds at a time. However, for patients who clench and grind their teeth, they apply even more forces to their sensitive neurological systems which are often already overwhelmed with the challenges of life.

For those who clench and grind their teeth, their problems often originated from childhood trauma. This trauma can be physical, chemical, biological or emotional in nature. Stage N3 sleep is one of the most important things to consider when having the ability to recover from trauma, especially in childhood. The paradox of sleep stages throughout the ages is critical to understand. Ensuring that children are assessed for sleep dysfunction is critical for long-term wellness.

The paradox of life is that adults are simply children with complex unresolved issues. In addressing sleep disordered breathing, children are often the most difficult to treat when addressing symptoms yet often the easiest to treat in achieving a long-term resolution for improved function.

Early intervention in life is the key to preventing late stage failures of health. Dentistry holds the key to guided facial growth and improved neurologic signaling.
Working Together for a Solution

We need to sleep well to attain optimum health, yet we can’t get quality sleep if our health is compromised. We often need to lose weight to lower airway resistance, yet we can’t lose weight if cortisol levels are elevated as a result of fragmented sleep. We worry about increasing our quality of sleep, yet that same worry is causing a decrease in our sleep quality.

By understanding that no two patients should be treated the same way, sleep technologists can help the medical and dental teams acquire more meaningful data. There is a big difference in evaluating and treating the slender, middle-aged woman and the hyperactive, overweight child. Awareness and documentation of postural compensations during sleep can be a tremendous help to the doctors making treatment decisions based on the data that you collect.

For example, a patient sleeping with an extended neck is often an unconscious effort by the patient to increase airflow but often results in headaches, jaw joint dysfunction and abnormal growth patterns in children. By making notes about the patient’s neck position during sleep, you can help the treatment teams discern data that has been obtained through positional compensations.

Ask about their habitual sleep position, that might affect their ability to get comfortable during the sleep study. By observing mouth breathing both awake and during sleep, you can also report the data to the treatment team for consideration as a critical factor in airway function.

The one thing that you will get two doctors to agree on is that the third one should have done it differently.

Despite the obvious challenges of living in a paradox-filled world, there is comfort in knowing that when you know better, you can do better. Your primary role as a sleep technologist is to gather data. Your responsibility as a human is to support your fellow man. Your challenge as a health care provider is to provide an opportunity for a better health care model.

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Your collaborating doctors also have their challenges. Many physicians may not understand the benefits of a well-designed dental therapeutic intervention and many dentists performing oral appliance therapy may not understand the enormous impact to the patient with complex needs. If the physician has a limited perspective, they will downplay the benefits of dental sleep appliances. If the dentist has a limited perspective, they may fall into the hammer and nail paradigm where if all they have is a hammer (one approach to dental sleep medicine), everything starts looking like a nail (patient with sleep disordered breathing).

Not everything in life is as it seems to be on the surface and there is much more to understanding the complexities of sleep quality than a simple number. AHI may define our ability to obtain insurance reimbursement for an official diagnosis of obstructive sleep apnea but it does not define sleep quality or the impact of sleep on overall health.

By being aware of the complexities of sleep and looking beyond the obvious and easily measurable, you can have a unique insight into new and improved ways to support improvements in patient care. As a highly educated and well-informed sleep technologist, you can help the dentist and physician “pair of docs” help their patients live better lives.

“How wonderful that we have met with a paradox. Now we have some hope of making progress.” – Niels Bohr

References

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